

## Bureau of Land Management, Interior

## § 3592.2

thereof, is not to be mined or is to be rendered unminable by the operation, the operator/lessee shall submit appropriate justification to the authorized officer for approval;

(7) Appropriate maps and cross sections showing:

(i) Federal or Indian lease boundaries and serial numbers;

(ii) Surface ownership and boundaries;

(iii) Locations of existing and abandoned mines;

(iv) Typical structure cross sections;

(v) Location of shafts or mining entries, strip pits, waste dumps, and surface facilities; and

(vi) Typical mining sequence, with appropriate timeframes;

(8) A narrative which addresses the environmental aspects associated with the proposed mine which includes, at a minimum, the following:

(i) An estimate of the quantity of water to be used and pollutants that may enter any receiving waters;

(ii) A design for the necessary impoundment, treatment or control of all runoff water and drainage from workings to reduce soil erosion and sedimentation and to prevent the pollution of receiving waters;

(iii) A description of measures to be taken to prevent or control fire, soil erosion, subsidence, pollution of surface and ground water, pollution of air, damage to fish or wildlife or other natural resources and hazards to public health and safety; and

(9) A reclamation schedule and the measures to be taken for surface reclamation of the Federal or Indian lease(s), license(s), or permit(s) that will ensure compliance with the established requirements. In those instances in which the lease requires the revegetation of an area affected by operations, the mining plan shall show:

(i) Proposed methods of preparation and fertilizing the soil prior to replanting;

(ii) Types and mixtures of shrubs, trees or tree seedlings, grasses or legumes to be planted; and

(iii) Types and methods of planting, including the amount of grasses or legumes per acre, or the number and spacing of trees or tree seedlings, or combinations of grasses and trees;

(10) The method of abandonment of operations on Federal or Indian lease(s), license(s), and permit(s) proposed to protect the unmined recoverable reserves and other resources, including the method proposed to fill in, fence or close all surface openings which are a hazard to people or animals. Abandonment of operations also is subject to the provisions of subpart 3595 of this title; and

(11) Any additional information that the authorized officer deems necessary for approval of the plan.

(d)(1) Approved exploration and mining plans may be modified at any time to adjust to changed conditions or to correct an oversight. To obtain approval of an exploration or mining plan modification, the operator/lessee shall submit a written statement of the proposed modification and the justification for such modification. Any proposed exploration or mining plan modification(s) shall not be implemented unless previously approved by the authorized officer.

(2) The authorized officer may require a modification to the approved exploration or mining plan if conditions warrant.

(e) If circumstances warrant, or if development of an exploration or mining plan for the entire operation is dependent upon unknown factors which cannot or will not be determined except during the progress of the operations, a partial plan may be approved and supplemented from time to time. The operator/lessee shall not, however, perform any operation except under an approved plan.

### § 3592.2 Maps of underground workings and surface operations.

Maps of underground workings and surface operations shall be drawn to a scale acceptable to the authorized officer. All maps shall be appropriately marked with reference to Government land marks or lines and elevations with reference to sea level. When required by the authorized officer, vertical projections and cross sections shall accompany plan views. Maps shall be based on accurate surveys and certified by a professional engineer, professional land surveyor or other professionally qualified person. Accurate copies of

such maps or reproductive material or prints thereof shall be furnished by the operator to the authorized officer when and as required.

**§ 3592.3 Production maps.**

(a) The operator shall prepare maps which show mineral production from the leased lands. All excavations in each separate bed or deposit shall be shown in such a manner that the production of minerals for any royalty period can be accurately ascertained. Maps submitted for in situ or solution mining shall show pipelines, meter locations, or other points of measurement necessary for production verification. Production maps shall be submitted to the authorized officer at the end of each royalty reporting period or on a schedule determined by the authorized officer. As appropriate or required by the authorized officer, production maps also shall show surface boundaries, lease boundaries and topography, including subsidence resulting from mining activities.

(b) In the event of failure of the operator to furnish the maps required by this section, the authorized officer shall employ a licensed mine surveyor to make a survey and maps of the mine, and the cost thereof shall be charged to and promptly paid by the operator/lessee.

(c) If the authorized officer believes any map submitted by an operator/lessee is incorrect, the authorized officer may cause a survey to be made, and if the survey shows the map submitted by the operator/lessee to be substantially incorrect in whole or in part, the cost of making the survey and preparing the map shall be charged to and promptly paid by the operator/lessee.

**Subpart 3593—Bore Holes and Samples**

**§ 3593.1 Core or test hole cores, samples, cuttings.**

(a) The operator/lessee shall submit promptly to the authorized officer a signed copy of records of all core or test holes made on the lands covered by the lease, license or permit. The records shall be in a form that will allow the position and direction of the holes to be located on a map. The

records shall include a log of all strata penetrated and conditions encountered, such as water, gas or unusual conditions. Copies of analysis of all samples shall be transmitted to the authorized officer as soon as obtained or as requested by the authorized officer. The operator/lessee shall furnish the authorized officer a detailed lithologic log of each drill hole and all other in-hole surveys or other logs produced. The core from test holes shall be retained by the operator/lessee for 1 year or such other period as may be directed by the authorized officer, and shall be available for inspection by the authorized officer. The authorized officer may cut such cores and receive samples as appropriate. Upon the request of the authorized officer, the operator/lessee shall furnish samples of strata, drill cuttings and mill products.

(b) Surface drill holes for development or holes for prospecting shall be abandoned to the satisfaction of the authorized officer by cementing and/or casing or by other methods approved in advance by the authorized officer and in a manner to protect the surface and not endanger any present or future underground operation or any deposit of oil, gas, other mineral substances or aquifer.

(c) Logs and analyses of development holes shall not be required unless specifically requested by the authorized officer. Drill holes may be converted to surveillance wells for the purpose of determining the effect of subsequent operations upon the quantity, quality of pressure of ground water or mine gases. Such conversion may be required by the authorized officer or requested by the operator/lessee and approved by the authorized officer. Prior to the termination of the lease, license or permit term, all surveillance wells shall be reclaimed unless the surface owner assumes responsibility for reclamation of such surveillance wells. The transfer of liability for reclamation shall be approved in writing by the authorized officer.

(d) When drilling on lands with potential for encountering high pressure oil, gas or geothermal formations, drilling equipment shall be equipped with blowout control devices acceptable to the authorized officer.